

Listing of the Claims:

1 – 8. (Canceled)

9. (Currently amended): A flue gas treating process for treating a flue gas comprising nitrogen oxides and sulfur oxides, the process comprising:

denitrating the flue gas with a denitrator;

injecting ammonia into the flue gas prior to introducing the gas into an absorption tower, wherein the amount of ammonia is injected in such a quantity that an excessive level of ammonia or an ammonium salt will remain in the flue gas when the flue gas is subsequently contacted with an absorbing fluid;

introducing the flue gas into an absorption tower; and

desulfurizing the flue gas in the absorption tower by contacting the flue gas with the absorbing fluid, wherein the absorbing fluid absorbs sulfur oxides,

spraying the flue gas with a liquid having a higher acidity than the absorbing fluid, wherein the spraying is done downstream of the desulfurization step and in the absorption tower, whereby ammonia remaining in the flue gas is absorbed in the absorption tower.

10. (Previously added): A flue gas treating process according to claim 9, wherein the amount of ammonia injected is at a concentration so that the amount of ammonia remaining in the flue gas after the injection step will be not less than 30 ppm.

11. (Previously added): A flue gas treating process according to claim 10, wherein the flue gas discharged into the environment has been denitrated by about 90%.

12. (Previously added): A flue gas treating process according to claim 9, further comprising:

introducing the flue gas leaving the denitration step into a heat exchanger on the upstream side of the absorption tower.

13. (Previously added): A flue gas treating process according to claim 12, wherein the heat exchanger is a non-leakage shell-and-tube heat exchanger.

14. (Previously added): A flue gas treating process according to claim 13, further comprising:

recovering heat from the flue gas; and

heating the flue gas leaving the absorption tower to a temperature favorable for emission into the atmosphere by using at least a part of the heat recovered in the heat exchanger.

15. (Previously added): A flue gas treating process according to claim 9, wherein the amount of ammonia injected is at a concentration so that the concentration of ammonia remaining in the flue gas when introduced into the heat exchanger will be in excess of the SO₃ concentration by 13 ppm or more.

16. (Previously added): A flue gas treating process according to claim 12, wherein the amount of ammonia injected is at a concentration so that the concentration of ammonia remaining in the flue gas introduced when injected into the heat exchanger will be in excess of the SO₃ concentration in the flue gas by 13 ppm or more.

17. (Previously added): A flue gas treating process according to claim 15, wherein the denitrator does not have an ammonia decomposition catalyst.

18. (Cancelled)

19. (Previously added): A flue gas treating process according to claim 18, wherein the pH of the absorbing fluid is about 6.0 and the pH of the downstream liquid is from about 4.0 to about 5.0.

20. (Previously added): A flue gas treating process according to claim 9, further comprising:

removing dust of the flue gas upstream of the absorption tower with a dry electrostatic precipitator, wherein the dry electrostatic precipitator is downstream of the ammonia injection.

21. (Previously added): A flue gas treating process according to claim 9, further comprising:

removing dust of the flue gas downstream of the absorption tower with a wet electrostatic precipitator.

22. (Previously added): A flue gas treating process according to claim 20, further comprising:

removing dust of the flue gas downstream of the absorption tower with a wet electrostatic precipitator.

23. (Previously added): A flue gas treating process according to claim 9, wherein ammonia is injected into the flue gas at a point downstream of the denitrator.

24. (Previously added): A flue gas treating process according to claim 9, wherein ammonia is injected into the flue gas in the denitrator.

25. (Previously added): A flue gas treating process according to claim 9, wherein the absorbing fluid comprises 150 mmol/liter or more ammonium ion.

26. ((Previously added): A flue gas treating process according to claim 25, wherein the absorbing fluid absorbs about 95% of the sulfur oxides.

27. (Previously added): A flue gas treating process according to claim 14, further comprising:

heating the flue gas leaving the absorption tower to a temperature favorable for emission into the atmosphere by using at least a part of the heat recovered in the heat exchanger; and

pressurizing the flue gas with a fan, wherein pressure loss in the absorption tower or reheating section is counter acted.

28. (Currently amended): A flue gas treating process according to claim 27, wherein a stack comprises the absorption tower, the reheating section and the fan, ~~comprise a stack and are~~ which are arranged together on a vertical axis.

29. (Previously added): A flue gas treating process according to claim 28, wherein the stack is about 90 meters.

30. (Previously added): A flue gas treating process according to claim 28, wherein the stack is supported by a framework having a width of about 25 meters.
